

FILED

11/18/2020

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA

v.

PITTSBURGH WATER AND SEWER
AUTHORITY

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Criminal No. 2:20-cr-360
(33 U.S.C. §§ 1311; 1317; 1342; 1319(c)(2);
18 U.S.C. § 2)

CLERK U.S. DISTRICT COURT
WEST. DIST. OF PENNSYLVANIA

INFORMATION

The United States Attorney charges:

COUNT ONE

INTRODUCTION

At all times relevant to this Information:

1. The defendant, PITTSBURGH WATER AND SEWER AUTHORITY (“PWSA”), was a municipal corporation organized by the City of Pittsburgh on February 17, 1984, pursuant to the laws of the Commonwealth of Pennsylvania. The defendant, PWSA, had an Executive Director who reported to a Board of Directors.

2. The defendant, PWSA, became responsible in the 1990s for providing drinking water and sewage collection services to residential, commercial, and industrial customers within the City of Pittsburgh. The defendant, PWSA, also sold drinking water to neighboring municipalities.

3. The defendant, PWSA, and the City of Pittsburgh also participated in the Allegheny County Sanitary Authority (ALCOSAN) system, which treated sewage generated by its participating municipalities.

4. ALCOSAN was a regional wastewater treatment system that serviced various municipalities in Allegheny County, Pennsylvania. Wastewater collected by the defendant,

PWSA, from residential, commercial, and industrial customers was sent to wastewater plants operated by ALCOSAN.

5. The Allegheny River was a “navigable water” within the meaning of the Clean Water Act, 33 U.S.C. § 1362(7) (also referred to hereinafter as the “Act”).

6. The defendant, PWSA, operated a drinking water production facility known as the “Water Treatment Plant” or the “Aspinwall Plant,” located on the right, downriver bank of the Allegheny River.

7. The Aspinwall Plant drew raw water from the Allegheny River to produce drinking water for the defendant’s, PWSA, customers.

8. The defendant, PWSA, also disposed of sewage and certain production wastes generated at the Aspinwall plant by sending them to ALCOSAN.

THE CLEAN WATER ACT

9. Section 301(a) of the Clean Water Act; 33 U.S.C. § 1311(a), prohibited the discharge of any pollutant into the waters of the United States by any person or entity except in accordance with the Act and a National Pollutant Discharge Elimination System (“NPDES”) permit issued pursuant to Section 402 of the Act, 33 U.S.C. § 1342.

10. Under Section 402(a) of the Act, 33 U.S.C. § 1342(a), the Administrator of the Environmental Protection Agency could issue NPDES permits to authorize the discharge of pollutants into the waters of the United States, subject to terms, conditions, and limitations set forth in such permits. EPA could also authorize individual States, such as the Commonwealth of Pennsylvania, to issue such permits under authority delegated from EPA. EPA had delegated such authority to the Commonwealth of Pennsylvania.

11. Effluent limitations, as defined in Section 502(11) of the Act, 33 U.S.C. § 1362(11), restricted the quantity, rate, and concentration of chemical, physical, biological, and other constituents of wastewater discharges. Numerical effluent limitations and narrative restrictions were among the conditions and limitations prescribed in NPDES permits issued pursuant to the Act.

12. Sections 308 and 402(a)(2) of the Act, 33 U.S.C. §§ 1318 and 1342(a)(2), provided that a NPDES permit could also require, among other matters, data and information collection and reporting; the establishment and maintenance of monitoring equipment; the sampling of effluent prior to discharge into a receiving waterway; and the reporting on a regular basis to the permit-issuing authority regarding the permit-holder's discharge of pollutants.

13. The Act regulates, among other things, sewage treatment plants operated by municipal governments and authorities, often referred to as publicly owned treatment works ("POTWs"). The discharge of a POTW's treated effluent into waters of the United States is regulated pursuant to the NPDES permit program.

14. In addition to receiving domestic sewage, POTWs also frequently receive industrial wastewater generated by industrial facilities that discharge into sewer systems. Depending upon the type of wastewater being discharged, a POTW, in accordance with the Act and the NPDES permit program, may be required to make an industrial user pretreat its wastewater prior to discharging the wastewater into the sewer system leading to the POTW, as set forth in 33 U.S.C. § 1317 and 40 C.F.R. § 403.8(f). Pretreatment is intended to protect the sewer system, the safety of workers, and ensure that discharges from industrial users do not interfere with or pass through the operations of the POTW without treatment, thereby protecting the equipment and processes of

the POTW and the biological, chemical and physical integrity of the receiving waters of the United States.

15. The federal pretreatment regulatory program under the Act is set forth at 33 U.S.C. § 1317 and 40 C.F.R. Parts 403, 405-471, and is comprised of four components containing specific regulatory prohibitions and limitations. One of the components involves “local limits” which are developed by individual POTWs and are tailored to address the specific types of pollutants generated by a particular industrial user and discharged to a POTW.

16. One typical kind of a “local limit” requires dischargers to sewer systems to obtain an Industrial User pretreatment permit which contains specific requirements similar to CWA NPDES permits issued under the Act, that is, limits on the quantity, type and concentration of pollutants that may be discharged to the POTW, compliance monitoring, and regular, periodic reporting to the POTW.

17. Such local limits are enforceable by the federal government if they are part of a pretreatment program approved by EPA. 33 U.S.C. § 1342 and 40 C.F.R. § 403.5(d).

PWSA’s CLEAN WATER NPDES AND INDUSTRIAL USER PERMITS

18. On or about November 9, 2009, the Pennsylvania Department of Environmental Protection (PADEP) issued Clean Water Act Permit No. PA0218961 (the NPDES Permit) to the defendant, PWSA, to regulate discharges from the Aspinwall plant. Under the NPDES Permit, the defendant, PWSA, was authorized to discharge certain pollutants in limited concentration into the Allegheny River from various locations at the Aspinwall Plant known as outfalls. Each outfall at the Aspinwall plant had a numerical designation. The PADEP renewed the NPDES Permit on or about April 17, 2017.

19. The NPDES Permit authorized the defendant, PWSA, to discharge only two waste streams from a facility at the Aspinwall Plant known as the Clarifier Building by means of an outfall designated Outfall 012. The first waste stream consisted of storm water collected from a portion of the roof of the Clarifier Building. The second consisted of partially treated drinking water referred to in the NPDES Permit as “clarifier blowdown.” Clarifier blowdown was generated when the defendant, PWSA, periodically needed to take a clarifier basin used in the production of drinking water out of service for repair or general maintenance. Clarifier blowdown consisted of the water that was needed to be removed from a clarifier basin in order to repair machinery used to operate each basin 24 hours a day.

20. The NPDES Permit set numerical limits on the amount and concentration of certain pollutants, to include Total Suspended Solids, Oil and Grease, and Total Residual Chlorine, that the defendant, PWSA, could discharge into the Allegheny River from Outfall 012. The defendant, PWSA, was also required under the NPDES Permit to monitor wastewater for the presence of certain metals.

21. Part C, Section 4 of the NPDES Permit applied to all of the outfalls identified in the NPDES Permit. Part C, Section 4 specifically prohibited the “discharge of floating solids . . . that result in the observed deposition” of material in the Allegheny River.

22. The defendant, PWSA, was required to perform periodic sampling of the discharge from Outfall 012, and report those results to the PADEP on a monthly Discharge Monitoring Report (“DMR”). An authorized representative of the defendant, PWSA, had to sign each DMR and certify that it was “true, accurate and complete.” Each DMR contained a statement above the signature line informing the signer that it was a criminal offense to knowingly report false information.

23. ALCOSAN operated a federally-approved pretreatment program. It issued Clean Water Act Industrial User permit No. P2-2008 (“IU Permit”) to the defendant, PWSA, on or about October 1, 2015. The IU Permit authorized the defendant, PWSA, to send up to one million gallons per day of “clarifier residuals,” commonly referred to as clarifier sludge, or sludge, to ALCOSAN’s wastewater plant for treatment. The defendant, PWSA, paid an annual fee of \$7,200 to discharge the sludge to ALCOSAN.

24. The IU Permit required the defendant, PWSA, to determine the amount of sludge it sent to ALCOSAN on a daily basis through use of a meter. The IU Permit required the defendant, PWSA, to perform compliance sampling and analysis periodically on its discharge to the ALCOSAN sewer system. The defendant, PWSA, was also required to monitor for a variety of pollutants, including metals, oil and grease, and organic chemicals.

25. The IU Permit required the defendant, PWSA, to report its daily volume of sludge discharged to ALCOSAN and the results of compliance sampling to ALCOSAN every six months pursuant to a Self-Monitoring Compliance Report (“SMCR”). The SMCR contained the daily amount of sludge being sent to ALCOSAN based on the meters positioned at each of the four clarifier basins in the Clarifier Building and a location referred to by the defendant, PWSA, as FM-5.

26. Like the NPDES Permit DMR, the ALCOSAN SMCR had to be signed by a representative of the defendant, PWSA. Each ALCOSAN SMCR contained a statement warning of criminal sanctions for knowingly providing false information. The PWSA submitted its last relevant SMCR to ALCOSAN on or about July 26, 2019. That SMCR covered the first six months of 2019.

THE ASPINWALL DRINKING WATER PLANT

27. The Aspinwall Plant had a design capacity to produce 117 million gallons of drinking water per day, but produced on average of 70 – 80 million gallons per day. The plant was staffed by salaried and hourly employees working on a 24-hour basis every day of the year. Drinking water operators worked eight-hour shifts. Some of the drinking water operators were duly licensed by the Commonwealth of Pennsylvania, while others were not. Licensed operators received higher pay. The Plant also employed laborers whose duties included landscaping, building maintenance, and cleaning clarifier basins.

28. The names of organizational units at the Aspinwall Plant changed over time. Drinking water operators and laborers were, at times, supervised by the same individual and sometimes by different individuals. The Plant's first-line supervisors involved in drinking water production were supervised by a second-level manager based at the facility. The second-level manager generally was referred to as the Director of Water Production.

29. The Plant had a laboratory facility which performed a variety of analytical work, to include the analysis of samples during the drinking water production process and the taking of samples as required by the defendant, PWSA's, NPDES and IU permits. The laboratory's supervisor was independent of the drinking water production chain of command, but worked closely with them.

30. Drinking water production at the Plant began with the drawing of raw water from the Allegheny River and the subsequent addition of chemicals to adjust the water's pH level and begin the removal of solids and metals. The water then flowed under Freeport Road to two large sedimentation basins where solids and other debris settled out over time. Water then flowed back to the Aspinwall Plant where it went through the clarification process. At this stage, chemicals

were added to adjust the water's pH level and promote further settling while the water sat in clarifiers located in the large Clarifier Building.

31. After clarification, the partially treated drinking water flowed through a series of large filters containing sand and anthracite coal, where additional impurities were removed. Periodic adjustments to the waters' pH level were made and disinfectant chemicals were added. Water then flowed to a facility known as the "Clear Well," a storage area for finished drinking water. From there, it flowed with gravity under the Allegheny River to the Highland Reservoir and then to PWSA's customers.

32. The Clarifier Building contained four clarifiers, large concrete basins each capable of holding 1.8 million gallons of water. Water flowed in and out of the clarifiers through pipes on a continuous basis. The addition of chemicals helped promote the generation of clumps of solid material, which eventually sank to the bottom of each basin. These solids were referred to as clarifier sludge or residuals ("sludge"). Each basin had multiple pipes, valves, drains, and other equipment that permitted the periodic automated removal of sludge and the dewatering of individual basins for maintenance and repairs.

33. After it was removed from a clarifier, the sludge flowed out of the Clarifier Building through an underground pipe to a concrete structure located less than 100 yards from the banks of the Allegheny River. This structure was mostly constructed underground, had a variety of pipes, valves, manual and electronic controls, and other machinery. The Plant's workers referred to this structure as "FM-5," "the sludge pit," "the vault," or "the ALCOSAN pit" (hereinafter referred to as "FM-5").

34. FM-5 had pipes leading from it to the Allegheny River and the ALCOSAN sewer line. The pipe leading to the Allegheny River went to Outfall 012, a permitted discharge point in

to the river. Another pipe took sludge generated during the treatment of drinking water and during the cleaning of basins during maintenance to the ALCOSAN sewer line.

35. The defendant, PWSA, had installed electronic flow meters at FM-5 and on each of the four basins in the Clarifier Building. Plant operators could monitor the meter readings from each of the four basins from a computer located in the Operator control room. For a time, an operator manually took the reading from the meter in FM-5. Operators on each shift manually entered figures into a spreadsheet for the defendant, PWSA, to use. The PWSA used these numbers to calculate the amount of sludge sent each day to ALCOSAN.

UNAUTHORIZED DISCHARGES OF SLUDGE INTO THE ALLEGHENY RIVER

36. The treatment of drinking water in the clarifier basins required use of a variety of mechanical devices primarily located underwater. That machinery would break and require repairs as determined by supervisory personnel based at the Aspinwall Plant. A basin had to be emptied of as much water as possible prior to the beginning of repairs. The removed water was referred to as “clarifier blowdown” in the NPDES Permit. The cleaning of a basin to enable repairs was a time-consuming, labor-intensive operation.

37. The dewatering process began with staff stopping the flow of water to the subject basin for approximately two days. During that time period, sludge settled out, was collected, and sent to ALCOSAN. After that initial period of time, the partially treated water was sampled and pumped to FM-5 over a period of two to three days. Wastewater in the form of “clarifier blowdown” then flowed into the Allegheny River via Outfall 012 as authorized by the Clean Water Act NPDES Permit.

38. Once the dewatering process was complete, laborers were lowered into the basin by means of a bucket crane. The laborers used three-inch firehoses to wash the accumulated sludge

off the basin's walls and machinery. Cleaning a basin could take several weeks depending on the amount of sludge present and other demands on the laborers' time. The mixture of the cleaning water and sludge should have been sent to the pipe leading to the ALCOSAN sewer connection at FM-5 for treatment.

39. Instead, employees of the defendant, PWSA, at the direction of multiple supervisors over a period of years, frequently sent the sludge/water mixture that resulted from the cleaning process to FM-5, and then used electronic or manual controls at FM-5 to divert the mixture to Outfall 012 where the mixture flowed into the Allegheny River. The recurring discharges of clarifier sludge into the Allegheny River were well-known to employees at the Aspinwall Plant, including supervisors at various levels. At least two of the defendant's, PWSA, supervisors personally diverted the sludge/water mixture into the Allegheny River.

40. Such discharges occurred multiple times a year since at least 2010. Plumes of discolored water and solids, including anthracite coal used in the filters, were visible in the Allegheny River. The anthracite coal was present because it came out of the filters when they were backwashed. Coal then became part of the raw water stream entering the clarifiers. The discharges also contained ferric chloride, a water treatment chemical, which had a distinctive rust color due to its iron content. The defendant, PSWA's, employees observed discolored plumes extending several hundred feet in the Allegheny River.

41. The employees and others also observed the buildup of solids in the Allegheny River. Employees of the defendant, PWSA, referred to this buildup as an "island" where birds were observed walking when the Allegheny River's water levels were low. The currents of the Allegheny River dissipated the island over time, but the island would reappear when new discharges occurred.

42. In May 2017, an employee of the defendant, PWSA, filed an anonymous complaint with the PADEP alleging that the Aspinwall Plant had been discharging solids into the Allegheny River in violation of the NPDES Permit. This complaint was filed after the employee had made a second-level manager in Water Production aware of the discharges and no institutional corrective measures were taken.

43. On or about May 16, 2017, a PADEP inspector visited the Aspinwall Plant and observed a buildup of solids near Outfall 012's discharge location.

COUNT ONE

The United States Attorney further charges:

44. From in and around the beginning of 2010, through in and around May 2017, and including on or about May 16, 2017, in the Western District of Pennsylvania, the defendant, the PITTSBURGH WATER AND SEWER AUTHORITY, through the actions of its salaried and hourly employees and supervisors, knowingly discharged pollutants, that is clarifier sludge, from a point source, namely Outfall 012, into the Allegheny River, in violation of Part C, Section 4 of Clean Water Act NPDES Permit Number PA0218961.

In violation of Title 33, United States Code, Sections 1311, 1342 and 1319(c)(2), and Title 18, United States Code, Section 2.

COUNTS TWO THROUGH EIGHT

The United States Attorney further charges:

45. Paragraphs 1 through 43 of this Information are realleged as if fully stated.

46. The electronic flow meters on basins 2 and 4 broke in or around late December 2014 or early January 2015. The flow meter at FM-5 stopped working at an unknown point in time but was inactive by in or around early 2015. The meters were supposed to be used by the defendant, PWSA, to report daily sludge discharges to the ALCOSAN sewage treatment system as required by the defendant's, PWSA, CWA Industrial User Permit P2-2008.

47. Because the meters were broken, the defendant's, PWSA, supervisors instructed the Aspinwall Plant's operators to estimate the amount of sludge flow from basins 2 and 4 by using round numbers such as 25,000 gallons for every four hours. Operators then entered these estimates, along with readings from the meters at basin 1 and 3, into a spreadsheet utilized by the defendant, PWSA. The numbers generated by these estimates were ultimately submitted to ALCOSAN every six months in the SMCRs. The SMCRs were signed by a representative of the defendant, PWSA, as being "true, accurate and complete" meter readings.

48. The fact that these meters were broken was known to the defendant's, PWSA, operators and management at various levels. In and around 2017, federal and state authorities were investigating issues involving lead in drinking water in Pittsburgh. That investigation was focused, in part, on the operation of the Aspinwall plant. The defendant, PWSA, authorized a Capital Contract for the Emergency Clarifier Repair—Emergency Project No. 2017-322-101-G, in 2017.

49. On or about July 26, 2019, the defendant's, PWSA, management sought approval from its Board of Directors to amend the emergency project "in the amount of \$47,852.71 to furnish and install four new flow meters for the sludge valves associated with each of the four

clarifiers at the Aspinwall Water Treatment Plant.” This approval was sought 4.5 years after the meters broke, and two years after federal and state regulators began intensely examining drinking water plant operations. The PWSA purchased equipment to repair the meters, but that effort failed due to equipment issues.

50. On or about January 15, 2020, federal investigators and prosecutors were at the Aspinwall Plant to, among other matters, tour the drinking water facility. Part of the tour included walking through the Clarifier Building and past the meters on each of the four basins. The tour also included observations of wastewater entering FM-5. No mention of the non-working meters at basins 2 and 4 and FM-5 was made during the tour or later that day.

51. On or about January 16, 2020, two workers employed by the defendant, PWSA, informed federal investigators and prosecutors that the meters at 2 and 4 and FM-5 were inoperable and had been broken for a period of several years.

52. The defendant, PWSA, replaced the meters on each of the four basins and FM-5 in and around February 2020, more than five years after they broke.

53. ALCOSAN representatives inspected the Aspinwall Plant once or twice each year. The defendant, PWSA, never informed the ALCOSAN inspectors that the flow meters at basin 2 and 4 and FM5 were broken and otherwise inoperable.

54. Each SMCR submitted to ALCOSAN by an authorized representative of the defendant, PWSA, contained sludge flow meter numbers for each day of the relevant six-month period. These numbers consisted of estimated flow from basin 2 and 4 instead of metered readings from those basins or FM-5.

55. The defendant, PWSA, affirmatively and repeatedly misled ALCOSAN about the operability of the meters prior to and even after the Aspinwall plant came under scrutiny in 2017.

Each SMCR sent to ALCOSAN included a section that the defendant, PWSA, entitled “Best Management Practices.” In each SMCR submitted covering the period from on or about January 1, 2015, and continuing through in and around June 2019, the defendant, PWSA, included the same boilerplate language describing the number of minutes each clarifier basin was opened to send sludge to ALCOSAN and about operator checks on the meters and their calibration. Moreover, in each SMCR, the defendant, PWSA, claimed that its workers regularly checked the flow meters.

56. In each SMCR, the defendant, PWSA, inaccurately described the amount of time each basin’s sludge valve was open. Moreover, the defendant, PWSA, also falsely stated that its employees “periodically check the calibration of all sludge flow meters to make sure they are within factory limits.”

57. On or about the dates set forth below, each such date constituting a separate count of this Information, the defendant, PITTSBURGH WATER AND SEWER AUTHORITY, did knowingly make a false material statement, representation or certification in a record or report submitted and filed as required by the Clean Water Act and the defendant, PWSA’s, Industrial User Permit No. P2-2008, that is, the defendant, PWSA, stated, represented and certified to ALCOSAN in the six-month SMCRs, that it used a meter as required by the Industrial User permit to monitor and calculate the daily amount of sludge being sent to ALCOSAN as required by the permit, when, in fact, it submitted estimated rather than actual sludge disposal data to ALCOSAN, and falsely claimed that employees checked meter calibrations on a regular basis, when, in fact, meters were broken, knowing all these statements, representations and certifications to be false:

Count	Date	Document
Two	February 16, 2016	SMCR
Three	January 18, 2017	SMCR
Four	July 28, 2017	SMCR

Five	September 27, 2017	SMCR
Six	July 24, 2018	SMCR
Seven	January 30, 2019	SMCR
Eight	July 26, 2019	SMCR

In violation of Title 33, United States Code, Section 1319(c)(4) and Title 18, United States Code, Section 2.

A handwritten signature in blue ink, appearing to read "Scott W. Brady", is written over a horizontal line.

SCOTT W. BRADY
United States Attorney
PA ID No. 88352